

Amendments to the Claims

Please amend the claims as follows.

1-35. (canceled)

36. (currently amended) An amusement ride assembly comprising:

a rotatable endless loop cable spanning with a catenary between end stations and the loop cable configured and operating in use as both a ride cable upon which a passenger carrier free-rolls under gravity and as a retrieval means for returning the passenger carrier to an end station after a ride via rotation of the loop cable;

a drive system operable by control signals to rotate the loop cable;

a passenger carrier suspended from the loop cable by a roller mechanism having roller wheels that are rotatably engaged with the loop cable to enable the passenger carrier to free-roll along the loop cable under gravity and the passenger carrier further comprising a clamping mechanism that is actuatable by control signals between a closed position in which the clamping mechanism is clamped to the loop cable to fix the passenger carrier to the loop cable and an open position in which the clamping mechanism is unclamped from the loop cable to allow the passenger carrier to free-roll along the loop cable under gravity via the roller mechanism; and

an electronic control system that is in signal communication with the drive system and the clamping mechanism of the passenger carrier, and which is configured to send control signals to actuate the clamping mechanism into the open position during a ride to allow the passenger carrier to free-roll along the loop cable under gravity via the roller mechanism from or toward one of the end stations toward or from another of the end stations and to subsequently actuate the clamping mechanism into a closed position to fix the passenger carrier to the loop cable at a position between the end stations for retrieval of the fixed passenger carrier toward one of the end stations via rotation of the loop cable by the drive system, the electronic control system being configured to operate automatically according to preset programming or being manually operable by an operator remote from the passenger carrier.

37. (previously presented) An amusement ride assembly according to claim 36 wherein the electronic control system is programmed to actuate the clamping mechanism of the passenger carrier into the open position to allow the passenger carrier to free-roll part way along the loop cable after initial release of the passenger carrier and to then actuate the clamping mechanism into the closed position to fix the passenger carrier to the loop cable when the passenger carrier has slowed down to less than a predetermined speed.

38. (cancelled)

39. (previously presented) An amusement ride assembly according claim 36 wherein the electronic control system is switchable between an automatic mode in which the electronic control system is configured to control movement of the passenger carrier along the loop cable via coordinated actuation of the clamping mechanism and operation of the drive system according to programmed ride settings, and a manual mode in which the electronic control system is manually operable by an operator remote from the passenger carrier to control movement of the passenger carrier along the loop cable via actuation of the clamping mechanism and operation of the drive system.

40. (previously presented) An amusement ride assembly according to claim 36 wherein the electronic control system comprises one or more sensors arranged to detect any one or more of the following: proximity of the passenger carrier to either of the end stations; actuation position of the clamping mechanism; speed of the passenger carrier along the loop cable; and distance travelled by the passenger carrier along the loop cable.

41. (previously presented) An amusement ride assembly according to claim 36 wherein the passenger carrier further comprises a swivel mechanism that is operable to rotate the passenger carrier about a substantially vertical axis.

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42. (previously presented) An amusement ride assembly according to claim 36 wherein the drive system is operable to rotate the loop cable in either direction, and wherein the electronic control system is arranged to operate the drive system to rotate the loop cable in the same direction that the passenger carrier free-rolls along the loop cable, while the passenger carrier free-rolls along the loop cable.

43. (cancelled)

44. (previously presented) An amusement ride assembly according to claim 42 wherein the electronic control system is arranged to actuate the clamping mechanism into the closed position to fix the passenger carrier to the loop cable when the passenger carrier has slowed down to a speed which is substantially the same as the speed of the loop cable.

45. (cancelled)

46. (previously presented) An amusement ride assembly according to claim 36 comprising two passenger carriers, one carried on each side of the loop cable.

47. (previously presented) An amusement ride according to claim 36 further comprising one or more intermediate stations located between the end stations and which support the loop cable intermediate of its length.

48. (currently amended) A method of providing an amusement ride comprising the steps of:
(a) loading a passenger carrier with one or more passengers, the passenger carrier being suspended from a loop cable spanning with a catenary between end stations by a roller mechanism having roller wheels that are rotatably engaged with the loop cable to enable the passenger carrier to free-roll along the cable under gravity and the loop cable configured and operating in use as both a ride cable upon which a passenger carrier free-rolls under gravity and as a retrieval means for returning the passenger carrier to an end station after a ride via rotation

of the loop cable, and the passenger carrier further comprising a clamping mechanism that is actuatable between a closed position in which the clamping mechanism is clamped to the loop cable to fix the passenger carrier to the loop cable and an open position in which the clamping mechanism is unclamped from the loop cable to allow the passenger carrier to free-roll along the loop cable under gravity via the roller mechanism;

(b) actuating the clamping mechanism of the passenger carrier into the open position to allow the passenger carrier to free-roll under gravity via the roller mechanism along a span of the loop cable from a position at or toward one end station, toward or from another of the end stations;

(c) actuating the clamping mechanism of the passenger carrier into the closed position to fix the passenger carrier to the loop cable at a position between the two end stations; and

(d) rotating the loop cable to move the fixed passenger carrier toward either of the end stations.

49. (previously presented) A method according to claim 48 wherein step (c) further comprises the step of actuating the clamping mechanism of the passenger carrier into the closed position when the speed of the free-rolling passenger carrier drops below a predetermined speed relative to the cable.

50. (previously presented) A method according to claim 48 wherein step (b) further comprises the step of rotating the loop cable in the same direction of travel as the free-rolling passenger carrier.

51. (previously presented) A method according to claim 50 wherein step (c) comprises actuating the clamping mechanism of the passenger carrier into the closed position when the speed of the free-rolling passenger carrier is substantially the same as the speed of the cable.

52. (currently amended) An amusement ride assembly according to claim 36 further comprising one or more additional cascaded stages, each stage comprising:

a rotatable endless loop cable spanning with a catenary between two stations; and the loop cable configured and operating in use as both a ride cable upon which a passenger carrier free-rolls under gravity and as a retrieval means for returning the passenger carrier to an end station after a ride via rotation of the loop cable; and

a drive system operable by control signals to rotate the loop cable; and one or more passenger carriers, each passenger carrier suspended from the loop cable by a roller mechanism having roller wheels that are rotatably engaged with the loop cable to enable the passenger carrier to free-roll along the loop cable under gravity via the roller mechanism and a clamping mechanism that is in signal communication with the electronic control system and which is actuatable by control signals from the electronic control system between a closed position in which the clamping mechanism is clamped to the loop cable to fix the passenger carrier to the loop cable and an open position in which the clamping mechanism is unclamped from the loop cable to allow the passenger carrier to free-roll along the loop cable under gravity via the roller mechanism.

53. (previously presented) An amusement ride assembly according to claim 52 wherein the passenger carrier(s) may transfer between loop cables of adjacent stages, and wherein a transfer station is provided between each stage to facilitate the transfer of the passenger carrier(s) between loop cables of adjacent stages.

54. (cancelled)

55. (previously presented) An amusement ride assembly according to claim 53, wherein one or more of the stations may form part of an adjacent stage.

56. (currently amended) An amusement ride assembly comprising:

a rotatable endless loop cable spanning with a catenary between end stations and the loop cable configured and operating in use as both a ride cable upon which a passenger carrier free-rolls under gravity and as a retrieval means for returning the passenger carrier to an end station after a ride via rotation of the loop cable;

a drive system operable by control signals to rotate the loop cable;

a passenger carrier suspended from the loop cable by a roller mechanism having roller wheels that are rotatably engaged with the loop cable to enable the passenger carrier to free-roll along the loop cable under gravity and the passenger carrier further comprising a clamping mechanism that is actuatable by control signals between a closed position in which the clamping mechanism is clamped to the loop cable to fix the passenger carrier to the loop cable and an open position in which the clamping mechanism is unclamped from the loop cable to allow the passenger carrier to free-roll along the loop cable under gravity via the roller mechanism; and

an electronic control system that is in signal communication with the drive system and the clamping mechanism of the passenger carrier, and which is programmed to automatically send control signals to actuate the clamping mechanism into the open position during a ride to allow the passenger carrier to free-roll part way along the loop cable under gravity via the roller mechanism from or toward one of the end stations and to then actuate the clamping mechanism into the closed position to fix the passenger carrier to the loop cable when the passenger carrier has slowed down to less than a predetermined speed.

57. (currently amended) An amusement ride assembly comprising:

a rotatable endless loop cable spanning with a catenary between end stations and the loop cable configured and operating in use as both a ride cable upon which a passenger carrier free-rolls under gravity and as a retrieval means for returning the passenger carrier to an end station after a ride via rotation of the loop cable;

a drive system operable by control signals to rotate the loop cable;

a passenger carrier suspended from the loop cable by a roller mechanism having roller wheels that are rotatably engaged with the loop cable to enable the passenger carrier to free-roll along the loop cable under gravity and the passenger carrier further comprising a clamping

mechanism that is actuatable by control signals between a closed position in which the clamping mechanism is clamped to the loop cable to fix the passenger carrier to the loop cable and an open position in which the clamping mechanism is unclamped from the loop cable to allow the passenger carrier to free-roll along the loop cable under gravity via the roller mechanism; and

an electronic control system that is in signal communication with the drive system and the clamping mechanism of the passenger carrier, and which is configured to be manually operable by an operator remote to the passenger carrier to send control signals to actuate the clamping mechanism into an open position during a ride to allow the passenger carrier to free-roll part way along the loop cable under gravity via the roller mechanism from or toward one of the end stations and to then actuate the clamping mechanism into the closed position to fix the passenger carrier to the loop cable when the passenger carrier has slowed down to less than a predetermined speed.

58. (previously presented) An amusement ride assembly according to claim 39 wherein the electronic control system is arranged to switch from the automatic mode to the manual mode on detection of a fault.

59. (previously presented) An amusement ride assembly according to claim 36 wherein the electronic control system comprises a control module at each end station, and wherein the control modules are arranged to communicate via a radio link.

60. (previously presented) An amusement ride assembly according to claim 59 wherein the electronic control system further comprises a passenger carrier control module located on the passenger carrier that is arranged to generate control signals for actuating the clamping mechanism, and wherein the passenger carrier control module further comprises a radio transmitter/receiver for communicating with at least one end station control module and is arranged to actuate the clamping mechanism in response to signals received from an end station control module.

61. (previously presented) An amusement ride assembly according to claim 36 wherein the control system comprises a passenger carrier control module located on the passenger carrier that is arranged to generate control signals for actuating the clamping mechanism based on preset programming of the passenger carrier control module.

62. (previously presented) An amusement ride assembly according to claim 36 wherein the clamping mechanism comprises: two opposing rope clamp blocks being located on opposite sides of the loop cable and which are movably mounted for reciprocating movement toward or away from each other, the rope clamp blocks being operatively connected to an actuator that is configured to drive movement of the clamping mechanism based on control signals between the open position in which the rope clamp blocks are displaced from the cable allowing it to freely travel through the clamping mechanism and the closed position in which the rope clamp blocks are engaged with the cable to fix it within the clamping mechanism.